

**Amendments to the Drawings:**

The attached sheets of drawings include new reference numerals 50, 52, 54, and 56 and other references rearranged to more clearly indicate the connector shell and its sub-compartments. These sheets replace the original sheets including FIGS. 1-5.

Attachment: Replacement Sheet

Annotated Sheet Showing Changes

## **REMARKS/ARGUMENTS**

### **I. Introduction**

Upon entry of the present amendment, claims 1-7 will remain pending in this application. Claims 1, 2, and 5-7 have been amended to explain further certain aspects of the invention, for example, to indicate that the claimed connector is between the store and the aircraft and to identify the store-side part of the connector and the aircraft-side part of the connector. Corrected drawings are also being submitted. Based on the above amendments and the following remarks, Applicants respectfully request allowance of the pending claims.

### **II. Drawings**

The Examiner has objected to the drawings under 37 CFR 1.83(a) as failing to show details of the invention as described in the specification. The Examiner has stated that the various parts cannot be distinguished from each other in the figures. Applicants submit with this response a set of corrected drawings, which are believed to address the Examiner's objections.

The corrected drawings include a new reference numeral 50 to more clearly indicate the connector outer shell. A forward end of the connector has been identified by new reference numeral 52. The electrical cable extending from the connector is now identified by reference numeral 54. The electrical conductors and contacts have been specifically shown in the drawings and are now identified by reference numeral 56. The drawings also show the various parts distinguished from one another.

### **III. Claim Objections**

The Examiner has objected to claims 1-7, stating that the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description. In particular, the Examiner has stated that it is not clear what structure is being identified as the "outer shell" because this structure is not clearly identified in the application. The corrected drawings and the amendments to the specification submitted with this response show and define the "outer shell," which is now referred to as numeral 50. Applicants believe that

these amendments address the examiner's objections to the claims and respectfully request that the objections be withdrawn.

#### **IV. 35 U.S.C. § 112**

The Examiner has rejected claims 1-7 under 35 U.S.C. § 112, second paragraph, as being indefinite. Regarding claim 1, the Examiner states that the phrase "disposed in use" is vague and indefinite. Applicants have removed the phrase "in use" to clarify that the connector is in fact disposed between and aircraft or dispenser and a store.

Regarding claim 7, the Examiner states that the term "EMC shielding" is not defined and is thus, indefinite. Applicants have revised the specification and claim 7 to clarify that "EMC" means "electro-magnetic compatibility." "EMC" is a recognized abbreviation of such compatibility, and accordingly, no new matter has been added.

#### **V. 35 U.S.C. § 102**

The Examiner has rejected claims 1-7 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,430,184 to Acord ("Acord"). The Examiner states that Acord discloses an electrical connector disposed between a store and an aircraft, a first half of the connector being mechanically connected to the store and the second half of the connector being connected to an electrical cable, the connector second half comprising a core containing electrical components and an outer shell snap-engagable with the first connector half to retain the connector second half in mating engagement with the connector first half. The Examiner further characterizes Acord as having an outer shell that is pulled off the connector first half as the store is separated from the aircraft, the outer shell being formed as a separate component or assembly, removably attached to the connector second half core. Applicants respectfully traverse this rejection and request reconsideration and withdrawal thereof.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *See* MPEP § 2131; *Verdegaal Bros. V. Union Oil Co. of Calif.*, 814 F.2d 628, 631 (Fed. Cir. 1987). However, Applicants respectfully submit that at least because the Acord patent does not (a) provide an outer shell that is formed as a separate component that is removably attached to the core of the aircraft-side of the electrical connector or (b) provide an outer shell that is

fitted to the core from the forward end as presently claimed, it does not anticipate or render obvious the present invention.

First, the Acord patent shows and describes a primary sleeve member 48, a spring finger member 39, and a secondary sleeve member 36 that are all assembled on the connector core 17 such that replacement of the shell or any part of the shell (e.g., the restrictor sleeve, spring finger and secondary member) requires electrical disconnection of the connector core. Acord does not provide an outer shell that is removably attached to the core. By contrast, Applicants provide a shell that is formed as a separate component that is removably attached to the core. Among other things, the feature allows replacement of outer shell assemblies without the need to disturb the electrical connection.

Second, the Acord components are all assembled from the rearward direction (e.g., via a threaded upper end of the electrical core 17 and corresponding threads on the secondary sleeve member 36). Replacement of the Acord shell or other components requires electrical disconnection of the connector core to allow rearward access to other components. By contrast, Applicants' invention as shown and presently claimed provides an outer shell that is removably fitted to the core from the forward end, rather than the rearward end. This allows ready servicing in the field by replacement of outer shell assemblies without the need to disturb the electrical connections, one benefit sought to be achieved by the present invention. *See* specification page 1, lines 28-30. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw this rejection.

#### **VI. 35 U.S.C. § 103**

The Examiner has also rejected claims 1 and 7 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,695,109 to Ratchford ("Ratchford") in view of Acord. The Examiner states that Ratchford discloses all of the claimed structure, but does not show the connector disposed in an aircraft between the store to be release and the aircraft. The Examiner's position is that it would have been obvious to use the Ratchford connector between an aircraft and a store as suggested by Acord. Applicants respectfully traverse this rejection and request reconsideration and withdrawal thereof.

Without acquiescing to the combinability of the cited references, Applicants submit that even if they were properly combined, the claimed invention would not result. Similar to the Acord assembly, the Ratchford patent requires disconnection of the electrical components to allow rearward access. In other words, if the lanyard ring or the locking ring or any of the internal components of the Ratchford device need replacement, the electrical cable would need to be disconnected. Accordingly, neither Acord nor Ratchford, whether considered alone or in combination, disclose or suggest the presently claimed invention.

#### Conclusion

For at least the above reasons, Applicants respectfully request allowance of claims 1-7 and issuance of a patent containing these claims in due course. If there remain any additional issues to be addressed, the Examiner is urged to contact the undersigned attorney at 404.815.6147.

Respectfully submitted,

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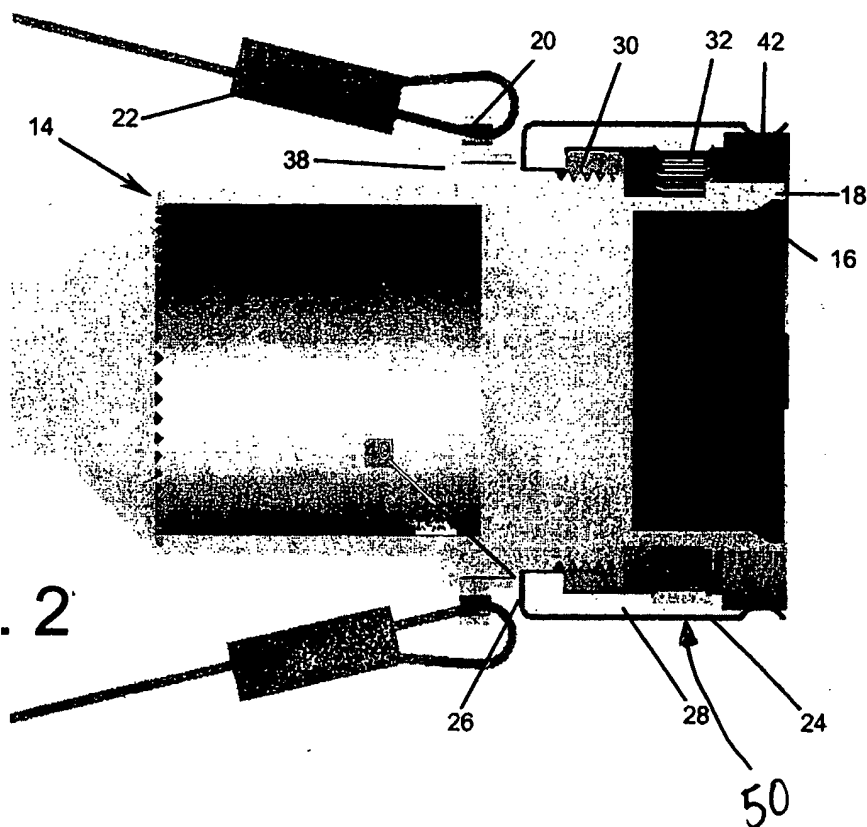
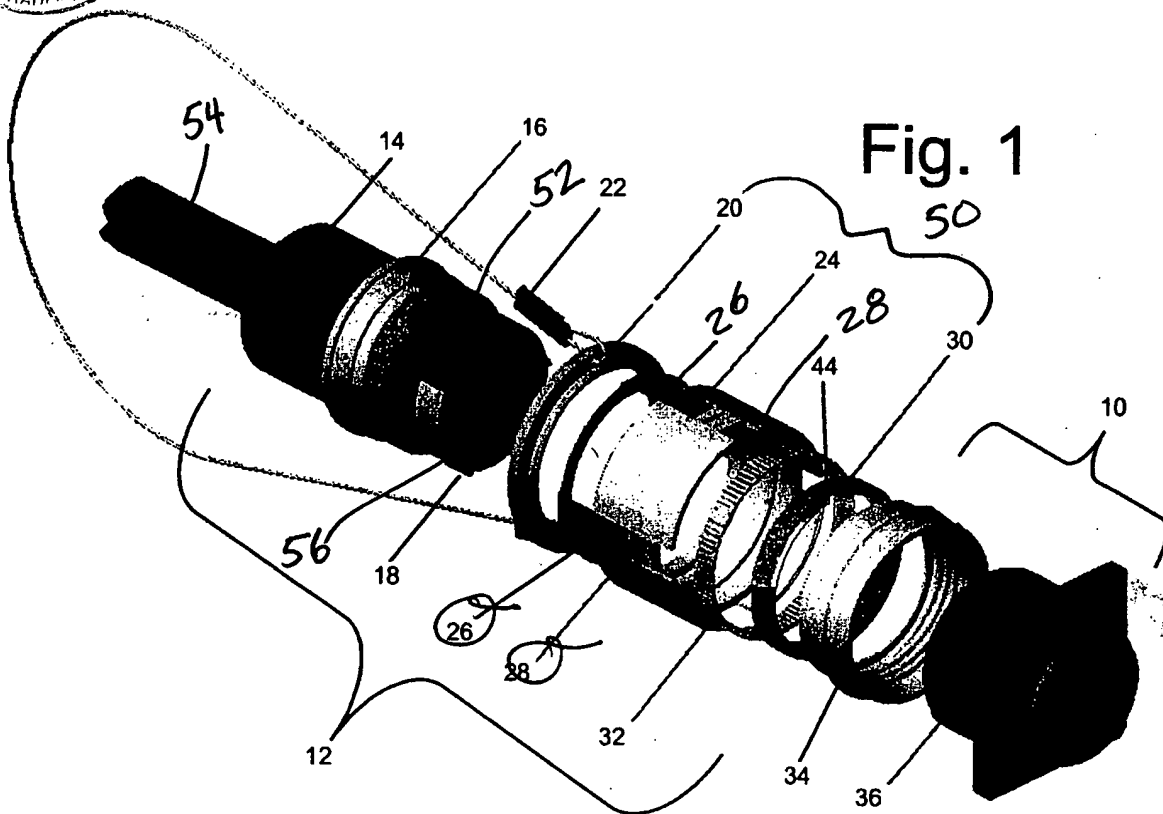
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 PATENT & TRADEMARK OFFICE

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 Inventors: John Eaton, et al.  
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 404.815.6528

# Annotated Sheet Showing Changes

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Fig. 3

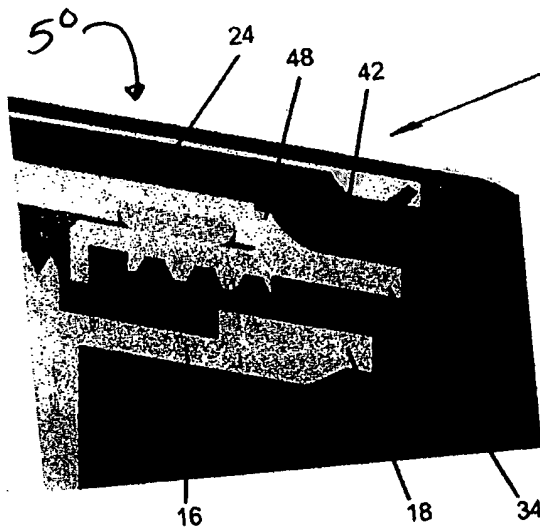
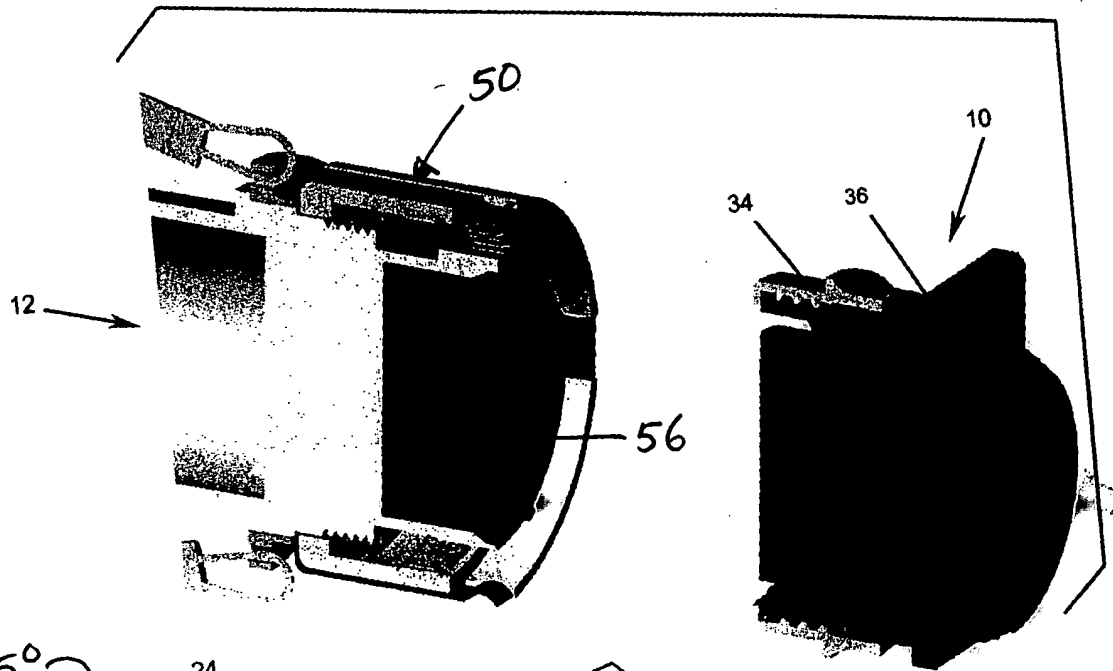


Fig. 5

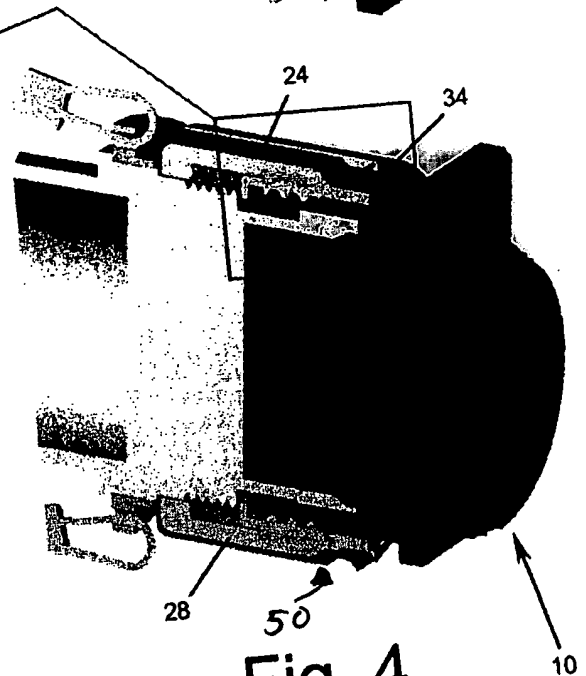


Fig. 4